

Threatened and Endangered Species in Forests of Wisconsin

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KARNER BLUE BUTTERFLY

(*Lycaeides melissa samuelis*)

Federal Status: Endangered

State Status: Not Listed



Description: The Karner blue butterfly is a native of the jack pine/oak barrens of central and northwestern Wisconsin. It has a one-inch wingspan and is colored deep blue above (in the male) or blue-brown with orange spots on the hindwing (in the female). It is distinguished by the lack of a tail and a band of prominent orange spots between pale blue iridescent spots along the entire margin of the underside of both the hind- and forewings. Similar species include the northern blue (found in northeastern Wisconsin and always associated with the shrub

dwarf bilberry) and the Melissa blue (found in northwestern Wisconsin), which has prominent orange spots on the top of the forewing of the female.

Habitat: The Karner blue is always found close to its larval food plant, wild blue lupine (*Lupinus perennis*). Both can be found in savannas, open woodlands, jack pine/oak barrens and prairies where the soil is often sandy.

Forestry Considerations: Forestry activities that affect canopy closure will affect both wild lupine and Karner blue populations. The larval stage (caterpillar) of the Karner blue survives best on lupine in semi-shaded conditions; however, canopy closure of more than 75% leads to reduced, nonflowering lupine stands and fewer butterflies. A mixture of shaded and open sites providing both lupine and a diversity of nectar-producing plants throughout the summer months will benefit Karner blue butterflies. Winter, frozen ground, logging and the use of lighter-weight equipment is advised. Repeated use of the same skid trail is to be avoided as this can cause soil compaction and floristic changes. If it is necessary to conduct forestry activities during the growing season, protect lupine patches from disturbance. Retaining hardwood slash piles (< 2 feet high) can benefit this butterfly, as these areas may be



used for egg-laying. Creating and maintaining haul roads that connect Karner blue butterfly sites benefit the butterfly, as the roads could act as dispersal corridors. Herbicides, if needed, should be applied after August 31.

Detailed information on the effect of forestry practices on Karner blues can be found in *Forest Management Guidelines: Developing Management Plans Compatible with Karner Blue Butterfly Persistence*. Copies are available from the U.S. Fish & Wildlife Service Field Office in Green Bay (see Appendix II).

